

## Protocol for Controlling Nigel B Design RS-485 Amplifier Version 2 with Speaker Detection & Version Number

Commands and replies 9 ASCII characters followed by carriage return (char 13) (hex 0D)  
Amplifiers will reply to all commands except global commands

Preamble NBD

**Command ! Reply \*** (See sample commands)

**Query ? Reply #** (See sample commands)

**Amplifiers Units** 1-31 use 01-31

**Potentiometers numbers A-B Potentiometers Levels** 00-99 A=Left B=Right

**Switch closures 1-2 Switches On=99 Off=00**

**Sample command** from controlling computer (NBD03!A55) No spaces in commands. Spaces here are to illustrate values only.

**Preamble Amplifier # Command Potentiometer # Value** NBD 03 ! A 55 (Set pot #1 on amp #3 to 55)

**Reply from Amplifier** (NBD03\*A55)

**Preamble Amplifier # Completed Potentiometer # Value** NBD 03 \* A 5 (Command completed-No errors)

**Sample Query** NBD 06 ? B 00 (What is setting of pot #2 on amp #6)

**Reply** NBD 06 # B 65 (Pot #2 on amp #6 is set at 65)

**Mute command** NBD12!m00 (Mute amp 12) NBD12!m99 (Unmute amp 12)

**Global commands** use 99 for all Amplifiers (No reply from amps)

**Global mute command** NBD99!m00 Unmute NBD99!m99 (Mute or unmute all amps)

**Mute Query** NBD06?m00

**Reply** NBD06#m00 or NBD06#m99 (Is amp #6 muted) Yes No

**Speaker Query** L or R (NBD06?!00) or (NBD06?r00) Returns 99 (OK) or 00 (No speaker)

**Firmware Version** (NBD01?v00) Returns firmware version times 10 Ex. NBD01#v12 for Amp 1 Version 1.2

**Errors?** Returns (NBD06\*e01) Amp #6 error #1)

'1' = Buffer overflow - Command too long

'2' = Invalid address - You should never see this one

'3' = Invalid value - Amp didn't understand value sent. This will happen if you send anything except 00 or 99 Switch settings

'4' = Timeout between bytes - Characters must not have more than about 1 second between them. In most cases the Amplifier will not reply to this error

'5' = Invalid command - Amplifier got the address but didn't understand the command

'6' = Can't adjust - Amplifier is muted can't set Potentiometers while muted